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Notic of All wability	Application No.		Applicant(s)	
	09/944,982		PATIRE ET AL.	
	Examiner		Art Unit	
	Linh V Nguyen		2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 05/19/04.
 2. ☒ The allowed claim(s) is/are 1 – 11, 12, 13, 16 – 18, and 20 – 25.
 3. ☒ The drawings filed on 29 October 2002 are accepted by the Examiner.
 4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

This office action is in response to applicant's amendment received on 03/23/04. Claims 12, 17 and 20 have been amended. Claims 14, 15, and 19 have been canceled. Claims 1 – 11, 12, 13, 16 – 18, and 20 – 25 are pending on this application.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

On page 4, Claim 10 after "each valid modulated sample signal." Delete the following: "11, The method according to claim 9, comprising measuring the distance between the consecutive sequence and each valid modulated sampled signal by measuring a cosine of a phase difference between the consecutive sequence and each valid modulated signal"

Allowable Subject Matter

1. Claims 1 – 11, 12, 13, 16 – 18, and 20 – 25 are allowed.
2. The following is an examiner's statement of reasons for allowance:

With respect to claims 1 and 25, in addition to other elements in respective the claim, the prior art does not teach a method for demodulating having comparing the

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consecutive sequence with all possible valid modulated sampled signals, and determining a bit decision representing a demodulation of the consecutive sequence of the modulated sampled signal, the determination made being based on a valid modulated sampled signal located closest to the consecutive sequence of the modulated sampled signal in a constellation.

With respect to claim 12, in addition to other elements in the claim, the prior art does not teach a method for demodulating having quantizing the at least one modulated input waveform to form quantized sequential signal; and concatenating the quantized sequential signals to form a part of an address to a memory.

With respect to claim 17, in addition to other elements in the claim, the prior art does not teach a demodulator having at least one counter operatively connected to the at least one memory device, an output from the at least one counter being used as part of the memory address to access the bit decisions.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Prior Art

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Simard U.S. Patent No. 5,394,109.

Borazjani U.S. Patent No. 5,719,867.

Laird et al. U.S. Patent No. 4,631,489.

Kim U.S. Patent No. 5,828,698.

Chalmers et al. U.S. Patent No. 5,272,446.

Gumacos et al. U.S. Patent No. 4,583,048.

Fowler U.S. patent No. 6,031,418.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Linh Van Nguyen whose telephone number is (571) 272-1810. The examiner can normally be reached from 8:30 – 5:00 Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Michael Tokar can be reached at (571) 272-1812. The fax phone numbers for the organization where this application or proceeding is assigned are (703-872-9306) for regular communications and (703-872-9306) for After Final communications.

LVN

06/04/2004


Michael Tokar
Supervisory Patent Examiner
Technology Center 2800